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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.           | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------|
| 10/618,558   | 07/11/2003  | Peter Gansen         | 64215-028 CIP                 | 5170             |
| 30743 7590 04/05/2007<br>WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C.<br>11491 SUNSET HILLS ROAD<br>SUITE 340<br>RESTON, VA 20190 |             |                      | EXAMINER<br>SERGEANT, RABON A |                  |
|  |             |                      | ART UNIT                      | PAPER NUMBER     |
|  |             |                      | 1711                          |                  |
| SHORTENED STATUTORY PERIOD OF RESPONSE   |             | MAIL DATE            | DELIVERY MODE                 |                  |
| 3 MONTHS   |             | 04/05/2007           | PAPER                         |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/618,558 | <b>Applicant(s)</b><br>GANSEN ET AL. |  |
|                              | <b>Examiner</b><br>Rabon Sergeant    | <b>Art Unit</b><br>1711              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,4-21 and 24-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,4-21 and 24-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/861,330.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>2/28/07</u> . | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 1711

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 28, 2007 has been entered.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Antecedence has not been found within the specification for claiming that the molecular weight of claim 11 is weight average molecular weight.

The issue at hand is not whether support exists for the subject matter; the issue is whether the specification provides adequate antecedence for the subject matter. This issue can be addressed by amending the specification to contain the same terminology as claim 11.

Applicants' previous amendment to the specification did not employ equivalent language.

3. Claims 2, 4-16, 18-21, and 24-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicants' amendment to claim 18 specifying that the composite material is visibly grainy renders the claims indefinite, because the language is subjective. It cannot be determined exactly what constitutes "grainy". It is unclear if any visual recognition of the particles within the matrix satisfies the "grainy" requirement.

4. Claims 4 and 26-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which

Art Unit: 1711

was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Applicants have failed to provide adequate support for the amendments to claims 4 and 26-30. Firstly, applicants have failed to indicate how the specification provides support for the language, "about 1 mm", within claim 4. Secondly, support has not been provided for the claimed values of the properties within claims 26-30. Examples can only provide support for the exact value, as it pertains to the exemplified composition. Accordingly, adequate support has not been provided for all values within the ranges denoted by "greater than", and adequate support has not been provided for the claimed specific values for all compositions that are encompassed by the claims. For example, only the composition of Example 2 provides support for the claimed tensile strength of 280 kPa.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

Art Unit: 1711

invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 2, 4-21, and 24-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schapel et al. ('834) in view of King ('135) and further in view of Ehrlich, Jr. ('702) and Fracalossi et al. ('221), and DE 3841043.

Schapel et al. disclose polyurethane gel compositions, suitable for use as pressure distributing elements, such as seat cushions, mattresses, and shoe components, wherein the gel composition corresponds to applicants' claimed gel matrix component. See abstract and columns 1-11. Patentees further disclose that the polymer may contain fillers. See column 7, lines 3+. Furthermore, given that the gels of the reference and gels of applicants are produced from the same reactants in the same ratios and given applicants' statement within line 11 of page 1 of the specification, the position is taken that compositions of Schapel et al. are clear.

7. Though the primary reference discloses the use of fillers, Schapel et al. fail to specifically recite the use of coarse materials to form a composite. However, the use of materials considered to correspond to applicants' claimed coarse particles within a polyurethane matrix, to be used as shoe soles, cushions, and mattresses, was known at the time of invention. King discloses polyurethane/cork composites useful for such applications as the production of shoe inner and outer soles, wherein the particle size of the cork meets that claimed. Furthermore, King discloses embodiments wherein a non-foamed polyurethane composite is produced. See abstract; column 2; column 6, lines 4+; and Example III. Ehrlich, Jr. discloses the attendant advantages of incorporating wood or cork particles within a polyurethane matrix, to be used as a shoe sole. See column 2, lines 37+. Fracalossi et al. disclose that such materials as particulate foam, cork, and

Art Unit: 1711

sawdust are added to a polyurethane to improve its physical properties. See column 3.

Fracalossi et al. further disclose that the materials may be used as cushions and mattresses. See abstract. DE 3841043 discloses the production of polyurethane/cork composites, wherein the cork particles sizes meet those claimed.

8. Therefore, the position is taken in view of the aforementioned teachings within the secondary references, especially those in view of King, that it would have been obvious to incorporate “coarse” particulate materials into the composition of Schapel et al., so as to obtain materials having improved properties as compared to the properties of the non-particulate containing compositions.

9. Applicants’ arguments have been considered, and the prior art rejection has been modified accordingly. Contrary to applicants’ arguments, in view of the teachings within King, the position is taken that non-foamed polyurethane/coarse cork composites were known at the time of invention; accordingly, the position is taken that it would have been obvious to incorporate such coarse particulate fillers into polyurethane compositions such as those of Schapel et al., so as to arrive at the instant invention. The remaining secondary references have been set forth to further establish that coarse particle filled polyurethanes were well known at the time of invention. Furthermore, given that King discloses high loadings of cork particles, the position is taken that King discloses composites, wherein the particles are visible. The position is further taken that the grainy appearance or visual appearance of the particles within the matrix amounts to nothing more than an obvious aesthetic design choice well within the capabilities of the skilled artisan. Lastly, given that the examples are not commensurate in scope with the

Art Unit: 1711

claims and the comparative examples fail to set forth prior art polyurethane/coarse particle composites, applicants have failed to demonstrate that their claimed properties are unexpected.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent  
April 1, 2007

  
**RABON SERGENT**  
**PRIMARY EXAMINER**